

## CLAIMS

### WHAT IS CLAIMED IS:

1. An isolated polynucleotide with C-type lectin receptor activity comprising a nucleotide sequence of SEQ ID NO: 2 or 3, the mature protein coding portion thereof, or the active domain thereof.
2. An isolated polynucleotide encoding a polypeptide with biological activity, said polynucleotide which hybridizes to the complement of a polynucleotide of claim 1 under stringent hybridization conditions.
3. An isolated polynucleotide encoding a polypeptide with biological activity, said polynucleotide having greater than about 90% sequence identity with the polynucleotide of claim 1.
4. The polynucleotide of claim 1 which is a DNA.
5. An isolated polynucleotide which comprises the complement of the polynucleotide of claim 1.
6. A vector comprising the polynucleotide of claim 1.
7. An expression vector comprising the polynucleotide of claim 1.
8. A host cell genetically engineered to express the polynucleotide of claim 1.
9. A host cell genetically engineered to contain the polynucleotide of claim 1 in operative association with a regulatory sequence that controls expression of the polynucleotide in the host cell.

10. An isolated polypeptide comprising an amino acid selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, the mature protein portion thereof, or active domain thereof.

11. A composition comprising the polypeptide of claim 10 and a carrier.

12. An antibody directed against the polypeptide of claim 10.

13. A method for detecting the polynucleotide of claim 1 in a sample, comprising:

a) contacting the sample with a compound that binds to and forms a complex with the polynucleotide of claim 1 for a period sufficient to form the complex; and

b) detecting the complex, so that if a complex is detected, the polynucleotide of claim 1 is detected.

14. A method for detecting the polynucleotide of claim 1 in a sample, comprising:

a) contacting the sample under stringent hybridization conditions with nucleic acid primers that anneal to the polynucleotide of claim 1 under such conditions;

b) amplifying a product comprising at least a portion of the polynucleotide of claim 1; and

c) detecting said product and thereby the polynucleotide of claim 1 in the sample.

15. The method of claim 14, wherein the polynucleotide is an RNA molecule that encodes a polypeptide of claim 10, and the method further comprises reverse transcribing an annealed RNA molecule into a cDNA polynucleotide.

16. A method for detecting the polypeptide of claim 10 in a sample, comprising:

a) contacting the sample with a compound that binds to and forms a complex with the polypeptide under conditions and for a period sufficient to form the complex; and

b) detecting formation of the complex, so that if a complex formation is detected, the polypeptide of claim 10 is detected.

17. A method for identifying a compound that binds to the polypeptide of claim 10, comprising:

a) contacting the compound with the polypeptide of claim 10 under conditions and for a time sufficient to form a polypeptide/compound complex; and

b) detecting the complex, so that if the polypeptide/compound complex is detected, a compound that binds to the polypeptide of claim 10 is identified.

18. A method for identifying a compound that binds to the polypeptide of claim 10, comprising:

a) contacting the compound with the polypeptide of claim 10, in a cell, for a time sufficient to form a polypeptide/compound complex, wherein the complex drives expression of a reporter gene sequence in the cell; and

b) detecting the complex by detecting reporter gene sequence expression, so that if the polypeptide/compound complex is detected, a compound that binds to the polypeptide of claim 10 is identified.

19. A method of producing the polypeptide of claim 10, comprising,

a) culturing the host cell of claim 8 for a period of time sufficient to express the polypeptide in said cell; and

b) isolating the polypeptide from the cell culture or cells of step (a).

20. A kit comprising the polypeptide of claim 10.

21. A nucleic acid array comprising the polynucleotide of claim 1 or a unique segment of the polynucleotide of claim 1 attached to a surface.

22. The array of claim 21, wherein the array detects full-matches to the polynucleotide or a unique segment of the polynucleotide of claim 1.

23. The array of claim 21, wherein the array detects mismatches to the polynucleotide or a unique segment of the polynucleotide of claim 1.

24. A method of treatment comprising administering to a mammalian subject in need thereof a therapeutic amount of a composition comprising a polypeptide of claim 10 and a pharmaceutically acceptable carrier.

25. A polypeptide having C-type lectin receptor activity comprising at least ten consecutive amino acids from the group consisting of SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7.

26. The polypeptide of claim 26, comprising at least five consecutive amino acids from the group consisting of SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7.

27. A polynucleotide encoding a polypeptide according to claim 25.

28. A polynucleotide encoding a polypeptide according to claim 26.

29. A polynucleotide encoding a polypeptide according to claim 10.

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